

WHAT IS CLAIMED IS:

1. An individual recognizing apparatus comprising:
a data acquisition unit to acquire certifying data from a
5 recognized person;
a detection unit to detect feature points of the certifying data
acquired by the data acquisition unit;
a change calculation unit to calculate the change of the
detecting positions of the feature points detected by the detection
10 unit;
an aptitude judging unit to judge whether the certifying data
acquired by the data acquisition unit is appropriate for the
preparation of a certifying dictionary based on the change in the
feature points calculated by the change calculation unit;
15 a dictionary preparing unit to prepare a certifying dictionary
based on the certifying data acquired by the data acquisition unit
when the certifying data is judged appropriate;
a dictionary storing unit to store the certifying dictionary
prepared by the dictionary preparing unit; and
20 a certifying unit to certify whether a recognized person is a
proper person using the certifying data acquired by the data
acquisition unit and the dictionary stored in the dictionary storing
unit.

25 2. The individual recognizing apparatus according to claim 1,
wherein the change calculation unit includes a unit to calculate at

least either one of the up_down and the left_right angle change of the feature points detected by the detection unit.

3. The individual recognizing apparatus according to claim 1,
5 wherein the certifying data acquired by the data acquisition unit is a face image of the recognized person;

4. The individual recognizing apparatus according to claim 3,
wherein the detection unit uses such face regions as eyes, brows,
10 nose or lip of the face image as the feature points.

5. The individual recognizing apparatus according to claim 1,
wherein the processes are executed again starting from the
acquisition of certifying data by the data acquisition unit when the
15 certifying data is judged as inappropriate by the aptitude judging unit.

6. An individual recognizing apparatus comprising:
a data acquisition unit to acquire certifying data from a
20 recognized person;
a dictionary preparing unit to prepare a certifying dictionary by
analyzing principal components based on the certifying data
acquired by the data acquisition unit;
a calculation unit to calculate an eigenvalue contribution rate
25 of the dictionary prepared by the dictionary preparing unit;
an aptitude judging unit to judge whether the dictionary

prepared by the dictionary preparing unit is appropriate as a certifying dictionary based on the eigenvalue contribution rate calculated by the change calculation unit;

5 a dictionary storing unit to store the dictionary prepared by the dictionary preparing unit when the dictionary is judged appropriate by the aptitude judging unit; and

10 a certifying unit to certify whether a recognized person is a proper person using the certifying data acquired by the data acquisition unit and the dictionary stored in the dictionary storing unit.

7. The individual recognizing apparatus according to claim 6, wherein the certifying data acquired by the data acquisition unit is a face image of the recognized person.

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8. The individual recognizing apparatus according to claim 7, wherein the detection unit uses such facial regions as eyes, brows, nose or lip of the face image as the feature points.

20 9. The individual recognizing apparatus according to claim 6, wherein the processes are executed again starting from the acquisition of certifying data by the data acquisition unit when the certifying data is judged as inappropriate by the aptitude judging unit.

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10. An individual recognizing method comprising:

acquiring certifying data from a recognized person;
detecting feature points from the acquired certifying data;
calculating the change of the detecting positions of the detected
feature points;

5 judging whether the acquired certifying data is appropriate for
the preparation of a certifying dictionary based on the change of the
calculated feature points;

preparing a certifying dictionary based on the acquired
certifying data when the certifying data is judged appropriate in the
10 judging step;

storing the prepared certifying dictionary; and
certifying whether a recognized person is a proper person using
the acquired certifying data and the stored dictionary.

15 11. The individual recognizing method according to claim 10,
wherein the step for calculating the change includes the step for
calculating at least either one of the up_down and the left_right
angle changes of the feature points detected by the detecting step.

20 12. The individual recognizing method according to claim 10,
wherein the certifying data acquired by the data acquiring step are
a face image of the recognized person.

13. The individual recognizing method according to claim 12,
25 wherein the detecting step uses such facial regions as eyes, brows,
nose or lip of a face image as the feature points.

14. The individual recognizing method according to claim 10,
wherein the processes are executed again starting from the
acquisition of the certifying data by the data acquiring step when
5 the acquired data is judged as inappropriate in the aptitude judging
step.

15. An individual recognizing method comprising:
acquiring certifying data from a recognized person;
10 preparing a certifying dictionary by analyzing principal
components based on the acquired certifying data;
calculating an eigenvalue contribution rate of the prepared
dictionary;
judging whether the prepared dictionary is appropriate as a
15 certifying dictionary based on the calculated eigenvalue contribution
rate;
storing the prepared dictionary when the prepared dictionary is
judged appropriate in the judging step; and
certifying whether a recognized person is a proper person using
20 the acquired certifying data and the stored dictionary.

16. The individual recognizing method according to claim 15,
wherein the acquired certifying data is a facial image of a
recognized person.

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17. The individual recognizing method according to claim 16,

wherein the detecting step uses such facial regions as eyes, brows, nose or lip of the facial image as feature points.

18. The individual certifying method according to claim 15,
5 wherein the processes are executed again starting from the acquisition of certifying data by the data acquiring step when the acquired data is judged as inappropriate in the aptitude judging step.